DOCUMENT RESUME

ED 326 615 CE 056 316

AUTHOR Osako, Masako M.
TITLE Training of Older Workers in Japan. Training Discussion Paper No. 43.
INSTITUTION International Labour Office, Geneva (Switzerland).
REPORT NO ISBN-92-2-107228-2
PUB DATE Aug 89
NOTE 38p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Adult Education; *Employment Patterns; *Employment Practices; *Employment Programs; Employment Projections; Federal Legislation; Foreign Countries; *Job Training; *Middle Aged Adults; Public Policy; Retirement
IDENTIFIERS *Japan; *Older Workers

ABSTRACT

Figures for Japan show that the percentage of people aged 55 and over will rise from 17.6 percent in 1980 to 32 percent in 2010. Employers show little concern about the aging of the work force and are accustomed to providing training geared to older workers. The government supports the employment and training of older workers through the Employment Insurance Act; the Older Worker Employment Security Act to support employment of workers aged 55 and over; and the Occupational Skill/Ability Development Act, which sets aside a certain portion of training activities for older workers and allows a higher rate of reimbursement of the cost of training older workers. The Japanese government offers occupational training to middle-aged and older workers directly through its affiliated entities (National Occupational Skill/Ability Development Centres) and through training centers operated by municipal authorities. Training courses offered by employers vary depending on the size of the company. Labor unions are concerned about training of older workers; they implement their objectives through influencing or working with management and by providing training programs. Training is significantly worse in small enterprises, although a higher proportion of older workers are employed. (Fourteen tables and 36 references are appended.) (YLB)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

ED326615

# TRAINING discussion PAPERS

edited by the Training Policies Branch of ILO Geneva

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

TMCS Glomark

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Discussion Paper No.43

## TRAINING OF OLDER WORKERS IN JAPAN

by

Masako M. Osako

August 1989

**LIMITED DISTRIBUTION**

Discussion papers are preliminary material circulated to stimulate critical discussion and comment. The views expressed both by editorial staff and contributors do not necessarily reflect those of the ILO.

CE056316

Copyright © International Labour Organisation 1989

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorisation, on condition that the source is indicated. For rights of reproduction or translation, application should be made to the Publications Branch (Rights and Permissions), International Labour Office, CH-1211 Geneva 22, Switzerland. The International Labour Office welcomes such applications.

---

ISBN 92-2-107228-2

*First published 1989*

---

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers. The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them. Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

ILO publications can be obtained through major booksellers or ILO local offices in many countries, or direct from ILO Publications, International Labour Office, CH-1211 Geneva 22, Switzerland. A catalogue or list of new publications will be sent free of charge from the above address.

---

Printed by the International Labour Office, Geneva, Switzerland

## PREFACE

*This report on the training situation of older people in Japan has been produced in the framework of ILO research dealing with training and retraining needs of older workers in industrialised countries.*

*The author, who finished writing in April 1989, was asked to consider the following guide-lines:*

- *What is the demographic and employment situation of older people in Japan?*
- *What impact do current pension schemes have on older workers?*
- *Do the government, employers, and unions have any training policies for older workers?*
- *Are there acts, laws, rules or regulations concerning training of older workers?*
- *Are there regular training procedures, pilot projects or experiments targeted at older people?*
- *Is any impact from the initial training to be seen?*
- *Is there any incorporation of the results obtained into training and education policies?*
- *What are the main institutions and organisations and who are the well-known individuals active in this field?*

*The findings are based on published papers and information supplied upon request by institutions and organisations that deal with older workers.*

*After the introduction, the report gives in the first section an overview of the employment situation in Japan. The second section deals with training policies and acts. Section 3 refers to the current training programmes operated or subsidied by the Government, and those organised by companies or unions. In section 4, deficits and further training needs are listed.*

*Note: The appendices have been omitted.*

CONTENTS


**Preface** iii

**Foreword** vii

**Introduction** 1

*Section 1*

**Employment situation** 3

1.1 Ageing of the labour force 3

1.2 Labour force participation 3

1.3 The management reaction to labour force ageing 3

*Section 2*

**Employment and training policies** 5

2.1 The Employment insurance Act 5

2.2 The Older Worker Employment Security Act 5

2.3 Occupational Skill/Ability Development Act 6

*Section 3*

**Occupational training prorgammes** 7

3.1 Government operated programmes 7

3.2 Government subsidy programmes 8

3.3 Company organised programmes 9

3.4 Union organised programmes 12

*Section 4*

**Deficits and needs in training issues** 15

4.1 Small enterprises 15

4.2 Women 15

4.3 Future training needs 16

**Summary** 17

**Tables** 19

**Bibliography** 29

## FOREWORD

*For many years, following a steadily growing birth rate, some industrialised countries have had only one problem with older workers: they retire too late. The best way to make room for young people in the labour market was to encourage older workers to leave. Age 65, once the minimum retirement age, quickly became the maximum. But at present, this development is causing concern rather than contentment. With fewer young workers entering the labour force the position of older workers will have to be reconsidered.*

*Statistics show a rapidly ageing population in many industrialised countries. This trend has its roots in rising life expectancy, low-birth rates and the maturing of the post-war baby boom generation. In 1985, Germans aged 55 or more comprised about 27.4 per cent of the total population; by the year 2000 the proportion will have risen to about 32 per cent, by 2025 to about 44 per cent. By the turn of the century, this age group could account for nearly 29 per cent in Sweden, 28 per cent in Japan and Italy, 26 per cent in the UK and Belgium, 22 per cent in Canada and in the US.*

*Despite their growing numbers, these older people hold a diminishing share of the labour force, following the current trend of being "carried out" of the labour force by various means. From 1970 to 1985, the labour force participation rate of men aged 55-60 in Germany declined from 89 to 79 per cent; the rate of the 60-65 age group from 74.7 to 33 per cent.*

*The ILO has recently started studying the training and retraining of older individuals in some industrialised countries. The "Older Workers Recommendation (162) 1980" (adopted on 23 June 1980 by the International Labour Conference) reveals the early interest of the organisation on this topic. Subsequently, the ILO (financially assisted by the Federal Republic of Germany) began to review the policies for the training and retraining of older workers. The study focuses on the ability of older workers to hold their jobs, to find a job, to be mobilised into self-employment, and to make their long evening of life useful to themselves and the community.*

*First findings of the main exploratory project suggest:*

- *Old age is no handicap to learning.*
- *Older workers have a proven track record.*
- *Pre-retirement education is becoming widely available.*

- *Leisure time education is common.*

- *Senior service is only timidly used.*

- *On-the-job training for older workers may be usual but is mostly invisible.*

- *Training for the job is scarcely used.*

- *The participation rate of older people in training or education courses is very low.*

*This is one of several discussion papers dealing with the training needs of older workers in industrialised countries.*

## INTRODUCTION

*As with many other nations around the world, Japan is facing the challenge of an ageing labour force. Japanese industry is attempting to meet this challenge while it also strives to increase the productivity and well-being of the workforce. Rapid changes in both the technological and economic environment in Japan have only further compounded efforts to find a solution. According to Japanese policy-makers and industrialists, a key factor in attaining these sometimes conflicting goals is the occupational training of middle-aged and older workers, which enables them to perform new or upgraded jobs efficiently.*

*Another important consideration is the forecasted escalation of social welfare costs as the Japanese population ages. If society wishes to reduce the burden of health care and pension costs for the elderly, it needs to help them remain healthy and productive. Effective job training of older persons, in the opinion of many Japanese, is a prerequisite for a productive ageing population.*

*To what extent and how successfully do Japanese industries utilise job training for older age groups? What role does the public sector play in this attempt? Are training opportunities differentially available for sub-segments of the labour force? What are future training needs? These are the main questions discussed in this exploratory report.*

*The preliminary findings of this study include:*

- *The worker's desire for employment remains strong well beyond the age of 60.*
- *Government, industry and unions support the notion that effective training of middle-aged and older workers should be an integral part of economic policy.*
- *The public sector provides short-term, as well as long-term training for unemployed workers regardless of age. It also provides subsidies and consultation to those corporations intending to train employees aged 45 and older.*
- *As a new direction, the government is advocating a life-long career development plan designed by each company for its workers. It recommends older worker training to be implemented in the context of such a long-range plan.*
- *Nearly half of the large corporations have training programmes specifically aimed at middle-aged and older employees. At smaller enterprises, such programmes are less frequent.*

– *Trade unions have been active in providing programmes which emphasise the quality of life and retirement preparation.*

*In conclusion, continuing vocational training of middle-aged and older workers is currently provided by a minority of private enterprises. However, it is forecasted that factors such as rapid technological change, extended retirement age and the relative shortage of labour will make the issue of continuing vocational training an economically viable alternative to Japan's human resource problems. In this regard, the Japanese Government has been instrumental in articulating the salient issues and providing guide-lines.*

*Note: In this report, "middle-aged and older" means 45 years old and older. The term "older" is used to indicate "middle-aged and older" unless specified otherwise as in the example of "older (i.e. 55 years old and over) employees."*

*The notion that "training of middle-aged and older workers adds value" is gaining considerable support in Japan where traditionally younger employees received a lion's share of company-sponsored training. This change has come about in tandem with the greying of the labour force which was partly accelerated by the recent extension of the retirement age from 55 to 60 at a majority of Japanese enterprises. As their workforce becomes older, managers realise the need to prevent this change from slowing down growth and lowering productivity. They attempt to accomplish this task under the pressures of (a) rapid technological change in nearly every field; (b) shifts in the industrial composition, e.g. from the secondary to tertiary industry; and (c) the widely practiced guaranteeing of employment security for most non-temporary workers which prohibits firing workers even when their skills become obsolete. As shown in this report, given these circumstances, the Japanese Government and industries regard occupational training as one of a few effective alternatives available to meet the challenge of an ageing workforce.*

*Note: Japan's largest steel mill Nippon Steel, Inc. is a case in point. Faced with a sharp decline of steel production in Japan, the company has recently announced a major restructuring plan under which the portion of revenues generated by the steel business will decline from the current level of 80 per cent to 50 per cent by 1995. To achieve this goal, the company is actively diversifying its business into software development, restaurant chains, communication, entertainment, etc. Since the mill adheres to a "non-lay-off" policy, a sizeable portion of its 64,000 employees (of whom the average age is 43 and most have committed their working careers to the steel industry) must be completely retrained to perform new occupations (Zaikai, 1988:49-51).*

## 1. EMPLOYMENT SITUATION

### 1.1 Ageing of the labour force

Japan's demographic change is more extensive than that of most other industrialised nations. Table 2, p. 20 shows a dramatic shift in the age composition of Japan's labour force. The proportion of those 24 years and under declined nearly half from 23.3 per cent in 1965 to 12.5 per cent in 1986, reflecting a decline in the birth rate and an increase in school attendance in this age category. In contrast, the 45 + age group increased from 29.8 per cent in 1965 to 40.3 per cent in 1986 due to the ageing of the general population, extension of retirement age and improved health of older workers.

### 1.2 Labour force participation

Another characteristic which differentiates Japan from other industrial nations is active labour force participation among older workers (table 3, p. 21). In 1986, for example, 72.5 per cent of males aged between 60 and 64 are in the workforce in Japan in contrast to 25-35 per cent labour force participation rates for this age group in most Western nations. It is also notable that older persons' labour force participation rates have declined much more gradually in Japan compared to other industrial nations. For instance, for the male 60-64 age group, the rates dropped only 10.3 per cent from 1965 to 1986 in Japan compared to a drop of almost 50 per cent in Western countries in the comparable period. Furthermore, the 55-59 age group in Japan has maintained a virtually constant level of work participation since 1965.

The frequent labour force participation of Japanese older workers is attributable to several factors. First, economic security is still an important concern of many elderly Japanese under the present pension system. Second, there is a widespread belief that working is good for one's health and well-being (table 5, p. 22). Third, the practice of a post-retirement contract under which a new retiree works a few more years with the same or a new employer is widespread. Finally, non-corporate positions as a self-employed or family employee are available in large number (table 6, p. 22)

### 1.3 The management reaction to labour force ageing

Japanese managers fear reduced adaptability to change and the decline in job efficiency on the part of an ageing labour force, according to several recent polls. However, at the same time, they regard occupational training as an effective countermeasure for such potential deterioration.

For example, in a 1983 poll conducted by the Center for Occupational Training Research, respondents commented that the ageing of blue-collar workers reduces the workplace's ability to respond to changes (52.4 per cent), decreases efficiency (41.4 per cent) and lowers workplace morale (12.8 per cent) whereas only 8.2 per cent did not forecast any changes (table 8, p. 23)

A more significant finding, however, is that a large majority of Japanese firms regard training as an effective measure to counteract reduced flexibility and productivity potentially induced by the ageing workforce. For example, in a study conducted by Konenreisha Koyo Kyokai in 1984, about 28 per cent of firms answered that they conduct a training programme in order to deal with difficulties generated by an ageing workforce, and an additional 33 per cent said that they are considering starting such a programme. The result of another recent study is more dramatic. A 1983 poll of some 600 machinery and machine tool factories, reports that 78.5 per cent of com-

panies responded that with effective life-long training, middle-aged and older persons should be able to maintain their productivity level (table 9, p. 24).

The Japanese management's awareness of the value of older worker training must be understood in the context of prevalent personnel practice and labour market conditions. The Japanese corporations adhere to the norm of a so-called lifetime employment guarantee under which only extreme economic hardship or personal wrongdoing justifies lay-offs. Japan's generally low unemployment rates, which ranged from 2-3 per cent in the last few decades also discourage the lay-off of aged workers. When the labour supply is tight, replacement workers, particularly those with marketable skills, are difficult to find (table 10, p. 25). This problem is more acute in smaller units where labour shortage is more prevalent. For example, in a 1986 survey of some 900 companies in Tokyo, 15.3 per cent of enterprises with 50-99 employees experienced a worker shortage compared to 9.4 per cent of those with 300-499 employees (Chukonen Career Kaihatsu Kyokai, 1987:154).

## 2. EMPLOYMENT AND TRAINING POLICIES

During the last few decades, the Japanese Government enacted several pieces of legislation aimed at promoting the expansion of employment opportunities for older persons. These acts reveal the government's position: (a) that the mandatory retirement age needs to be extended to 60; (b) measures need to be provided to facilitate older workers' employment security through age 65; and (c) effective job training is a necessary condition that will enable older persons to remain productive in a technologically changing economy. These positions are evident in the three major pieces of employment-related legislation discussed below.

### 2.1 The Employment Insurance Act

This Act (originally ratified in 1947 as the Unemployment Insurance Act and then changed to the current title in 1974) provides the basic framework for regulation concerning employment. Its objectives are two-fold: (a) to provide financial assistance to the unemployed through payments of unemployment compensation; and (b) to enhance job security of workers by preventive measures, such as (i) providing vocational training; (ii) improving working conditions; and (iii) subsidising of the employment of the hard-to-be-hired, including older workers. These objectives are implemented through a variety of means ranging from guidance and cash subsidy to reprimand. Several sections of this Act are specifically concerned with the protection of older persons as exemplified by the extension of the mandatory retirement age and government support for their occupational training. These issues are elaborated in additional legislation as discussed below.

### 2.2 The Older Worker Employment Security Act

This Act, originally enacted in 1971 and most recently revised in 1986, supports two policy objectives: (a) to increase employment security of older persons through the extension of the mandatory retirement age from 55 to 60; and (b) to expand job opportunities available to the 60-65 age group.

Regarding the former, the law has virtually accomplished its original objective, for at present, as much as 87 per cent of Japanese enterprises have either extended (or committed themselves to extend) the retirement age to 60 or over (table 7, p. 23). This accomplishment is a result of over 13 years of effort by the Ministry of Labour, including programmes to provide consultation and cash subsidies to those employers intending to extend the retirement age. The subsidy programme was replaced in 1986 by a prescribed measure which grants the government authority to order enterprises to submit written retirement age extension plans, if they have not yet done so.

The second objective of expanding job opportunities is being implemented by a variety of subsidies. For example, cash awards are given to employers whose workforce contains over 6 per cent of older (i.e. 50 plus) workers, and cash subsidies to the employer to cover one-fourth to one-third of the wage of older workers hired through a public employment agency and who remain on the job for at least a 12-month period. Judging from the low help-wanted/job-wanted ratio (currently at around one to ten for the 60 plus age group), the supply far exceeds demand in the elderly public employment market. Therefore, these and other similar programmes are expected to continue for some time.

### 2.3 Occupational Skill/Ability Development Act

This Act, originally ratified in 1969 as the Occupational Training Act and changed to its present title in 1985, provides the basic framework for training in the workplace, as well as publicly supported job training schools (to be outlined in section 2). In its most current version, the Act (a) stresses the value of continuous life-long occupational training; (b) encourages private sector initiative in developing training programmes; and (c) defines the government's role as a facilitator. While the Act is concerned with the general population, several sections are designed to meet the particular needs of older workers. For example, a portion of the government-operated training programmes train only those persons aged 45 and over. In a similar vein, the costs for training workers who plan to retire within a few years are reimbursed by government at a higher rate (1/3 to 1/2 the costs) than those costs incurred by the remainder of trainees attending approved institutions.

Note: The Japanese Government's approach to the expansion of older persons' work opportunities exemplifies its well-known reputation for addressing issues from a long-term perspective. In fact, the Ministry of Labour's effort for the extension of the retirement age began over 25 years ago in 1962, when the Ministry formed the Advisory Committee on Employment Policy. In the following year, the Committee issued a report proposing (a) the extension of the mandatory retirement age (then typically in the middle 50s); (b) occupational aptitude development training for those nearing retirement; and (c) programmes to assist job search of retirees. Additionally, the report assigns the responsibility of assisting retirees' job search to the previous employer. These policy guide-lines are still being actively implemented today.

## 3. OCCUPATIONAL TRAINING PROGRAMMES

### 3.1. Government operated programmes

As a provision stipulated by the Occupational Skill/Ability Development Act, the Japanese Government offers occupational training to middle-aged and older workers, directly through its affiliated entities (National Occupational Skill/Ability Development Centres) and through training centres operated by municipal authorities. The following discussion summarises the extent of the public sector's direct involvement in older worker training.

#### 3.1.1 Types of training

Training centres provide both short-term (i.e. over 12 hours and up to a few months) and long-term (6 months) programmes. The latter is designed for those who are planning to change careers. The trainees of the former programme are primarily semi-skilled workers and those of the latter are skilled, clerical, and professional people. (Detailed information about the training curriculum is not available at present.)

#### 3.1.2 Number of trainees

In the academic year 1987-88, the number of age 45 + workers are estimated to be 24,400 at national centres and 20,600 at municipal centres. While these numbers represent a vigorous increase over the last decade, they represent only a fraction of older workers seeking jobs, given that an estimated 790,000 persons over age 40 (or about 2 per cent of working population) were unemployed in 1987 (Rodosho, 1988).

Number of enrolled persons at National Occupational Skill/Ability Development Centres:

| | 1975 | 1980 | 1985 | 1987 |
|---|---|---|---|---|
| Total enrolled | 34 555 | 42 951 | 40 032 | 54 201 |
| Those aged 45 and over | 9 641 | 16 868 | 17 334 | 24 400 (E) |

Source. Rodosho (Ministry of Labour).

#### 3.1.3 Effectiveness of training

These training programmes are reasonably effective as demonstrated by the fact that judging from slightly over 50 per cent of the graduates succesfully obtain employment upon completion of the Occupational Skill/Ability Training Programme. It must be noted that the following figures are for the entire graduating class, of which about 45 per cent are age 45 +. (The survey was conducted immediately after the end of the academic year in March 1988.)

| | Percentage |
|---|---|
| Have found jobs in the trained field | 42.5 |
| Have found jobs in other fields | 11.8 |
| Have not found jobs | 45.7 |
| Total | 100 |

**3.2 Government subsidy programmes**

Under the leadership of the Ministry of Labour, the Japanese Government offers subsidies under several programmes designed to train older workers. The purposes of these programmes are to promote the policy direction adopted by the Ministry (e.g. desirability of the life-long skill/ability development plan on the company level) and to encourage the development of training programmes by the private sector through the provision of information and technical assistance. They appear to be effective in view of the increasing awareness of the issue among employers and the public. The major programmes are shown below with the programme starting year and the 1987 budget following each programme title.

*A. Life-long Skill/Ability Development Programme (1982)-Y8,437MM*

Objective: Encourage employers to provide occupational training throughout the employee's working life.

Programme: Subsidise employers who have designed a life-long skill/ability development programme for their workforce. One-third to one-half of the training costs of middle-aged and older workers and one-fourth to one-third of their salaries during the training are reimbursed by the government up to 150 days.

*B. Pre-retirement Occupational Training Programme (1987) - Y433MM*

Objective: Increase employability of older workers by providing training in marketable job skills.

Programme: Subsidise partial cost of the Ministry of Labour's approved job skill training programme undertaken outside their company by workers aged 50 and over. A majority of approved programmes are government license examination preparatory courses in real estate sales, accounting, computer programming, electrical engineering, etc. offered by a large number of private and public schools. They generally take six to 12 months to complete. Fifty per cent of the training cost (up to Y100,000) is reimbursed to the worker.

*C. Older Persons' Skill/Ability Development Information Centre (1978) - Y340MM*

Objective: Assist older workers to develop occupational skills and to acquire jobs through dissemination of useful information.

Programme: Established 133 centres nationally.

*D. Pre-retirement Seminar (1986) Y38MM*

Objective: Prepare older workers for productive retirement years.

Programme: Hold seminars for older workers on health maintenance, personal finance, etc.

The effectiveness of these programmes is difficult to assess partly because these budget figures do not reveal the amount actually used and partly because all of these programmes are aimed at long-term effectiveness. However, it is possible to identify certain strengths of the programmes. First, a few of them are large enough to have a substantial influence. For example, considering the maximum reimbursable costs of tuition and foregone wages, the Life-long Skill/Ability Development Programme can annually support 15,000 trainees in a 10-week programme. Second, programmes such as B and C of

the above, extensively utilise established facilities. For instance, the approved courses under the pre-retirement occupational programme are given on the campuses of existing public and private vocational schools all over Japan. Third, in Japan many government subsidised programmes are meant to act as catalysts for private sector action, indicating the desirability and implementability of policies, rather than as substitutes for private enterprise programmes. Considering these circumstances, it is highly likely that in several years these programmes will be replaced by the private sector's own life-long skill/ability development programmes. In fact, such a chain of events indeed preceded the successful extension of the mandatory retirement age in the 1980s.

### 3.3 Company organised programmes

A recent survey shows that the percentage of firms with a job training programme for older workers varies from 17.1 per cent to 46.6 per cent depending on the size of the company. The reality is more complex than indicated by these figures, for training plans vary greatly in terms of scope, depth and objectives. In one extreme, at several major corporations, the training of older workers is a serious attempt at survival in the environment of rapidly changing business demands (previously mentioned Nippon Steel, Inc. and to a lesser extent, Case 1) and technology (Case 2). In many other instances, on the other hand, the training of older workers may only entail a few days of lectures.

Going further, the adoption of training programmes for the older age group is likely to be more common, considering the widespread recognition of its value. For instance, in a recent Ministry of Labour survey, 97.1 per cent of polled firms agreed with the statement "it is good business practice to provide vocational training for those in the 40s" (Rodosho, 1985:236). In another survey, 78.5 per cent of respondents answered "A well-planned life-long job training programme should be able to keep older workers productive" (table 9, p. 24).

The cases given below are designed to show the diversity of the existing programmes. And yet, from these and other known cases, it is possible to identify certain characteristics:

- Programmes frequently include not only technical training but also life planning, health maintenance and pre-retirement training.

- Skill development programmes frequently target those in their 40s rather than older workers.

Note: It was not possible to evaluate the effectiveness of the programmes due to the limited information available.

**Case 1. Toyo Tire and Rubber, Inc.**

| | |
|---|---|
| *Company characteristics*: | Traditionally engaged in tire production. Recently, as the demand for tires has been sluggish, the company has diversified into other products such as golf balls. |
| *Number of employees*: | 3,586 |
| *Average age of employees*: | 40 years old |

*Programmes*: Several types of programmes for different occupational groups are available, such as marketing staff, production supervisors and middle management. They are all off-the-job full-time training programmes unless specified otherwise.

**Marketing staff training**

*Purpose*: To train all the marketing staff in the newly created golf ball division.

*Contents*: Introductory lecture on marketing techniques, golf products, etc. (4 days); on-the-job sales training (5 months); follow-up session (3 days).

*Number of participants*: 67 (of these, 28 were over age 45).

**Production supervisors' training**

*Purpose*: To upgrade line supervisors' skill and, at the same time, encourage them to contribute ideas on the improvement of the production process.

*Contents*: Statistics (1 month); technical analysis of the production process (1 month); product knowledge (1 month); electronic technique - theory and practice (2 months); problem-solving practice (1 month).

*Number of participants*: 7 (all were aged 45 and over).

**Quality control training**

*Purpose*: To train all middle-level managers in production sections.

*Contents*: Lectures on theory, practice and application of quality control (4 days).

*Number of participants*: 405 (of these, 376 were aged 45 and over).

## Case 2. Fuji Photo Film, Inc.

*Company characteristics*: The company hopes to transform itself into a world class film-maker on the strength of its technology.

Some older workers expressed their anxiety about rapid technological changes and physically demanding night shifts.

| | |
|---|---|
| *Number of employees:* | 11,067 |
| *Average age of employees:* | 39 |
| *Programmes:* | A programme entitled "Revitalisation of middle-aged workers enrols all the male employees between the ages of 40 and 55, or about 2,000 employees. The programme consists of three parts. Part 3 (technical training) is offered only to production staff. |

**Quality of life training**

| | |
|---|---|
| *Purpose:* | To assist workers in understanding their life situation and improve the quality of their lives. |
| *Contents:* | Read six books with their wife on the topics of career, personal finance, health, family life followed by a group discussion with co-workers (4 days) with two follow-up discussion sessions. |

**Health training**

| | |
|---|---|
| *Purpose:* | To assist workers in the assessment of their health and life-styles and provide guide-lines for the development of healthy life-styles. |
| *Contents:* | Physical and psychiatric health check up. Consultation with a nutritionist and exercise specialist. Development of an individualised exercise programme. |

**Technical training**

| | |
|---|---|
| *Purpose:* | To upgrade skills of blue-collar workers so that they can remain productive through retirement. |
| *Contents:* | Undertake one of the following two courses in consultation with management: (i) basic skill review and upgrading (several days), or (ii) in-depth training in the state-of-the-art technology in one's speciality (2-3 months). |

**Case 3.Fujitsu, Inc.**

| | |
|---|---|
| *Company characteristics:* | A worldwide leader in high technology. |
| *Number of employees:* | 50,617 |

*Average age of male employees*: 31

*Programme*: All managerial, professional and technical staff participate in a three-month, off-the-job, full-day training programme at age 45 (blue-collar employees are not eligible).

*Purpose*: To provide a mid-career employee an opportunity to evaluate himself so that a good match can be achieved between his ability and his career for the rest of his worklife.

*Contents*: Common curriculum (two months)

- Personnel administration, accounting, marketing, finance, international business, etc. through lectures, case studies and class exercise.
- Cultivation of leadership, inter-personal skills, and creativity.
- Liberal arts (current events, music, arts, history, etc.).
- Lectures on the various functional divisions of the company.

Specialised curriculum (one month)

• Participants choose one of the following courses:

- Off-shore business operation.
- Business development.
- Technical operation.

Note: All three of these cases are published in *Elders*, vol. 7, no. 5 (May 1985) and vol. 10, no. 6 (June 1988).

### 3.4 Union organised programmes

The ageing of the labour force has been one of the major concerns of labour unions in Japan together with the issues of retirement age, pension and job opportunities for older workers. Labour's position regarding the training of middle-aged and older workers is recently presented in two reports by the All Japan Council of Private Sector Labour Unions (Zen Nippon Minkan Rodo Kumiai Kyogikai), *The role of labour unions in the effort to mitigate the negative impact of ageing labour force (1986) and labour union's policy positions concerning ageing workforce (1987)*. The Council recommends the following four components to be stressed in the training programme:

- Development of technical knowledge and skills.
- Improvement of health.
- Improvement of morale at the workplace through strengthening the older worker's commitment to group objectives.

- Cultivation of the spirit of self-reliance and improvement of social and personal lives.

Labour unions have basically two ways to implement these objectives: (i) through influencing (or working with) management; and (ii) providing training programmes of their own. The former is done routinely through union negotiations and informal consultations. In fact, the Ministry of Labour specifically recommends that management consult the union when it formulates a skill/ability training programme.

Publicly available information about training programmes organised by unions is limited. However, eight cases reported in the above-mentioned *Labour Union's Policy Positions Regarding Ageing Workforce* provide some idea of the current status of such programmes. All of these cases utilise a lecture-discussion format and focus on life-coping skills outside the workplace, such as personal finance, health maintenance and inter-personal skill development. Two cases from the report are summarised below.

**Case 1. Silver Life Enrichment Programme by Mitsubishi Electric Workers' Union**

*Objectives* : The Mitsubishi Electric Workers Union started the above-captioned programme 11 years ago with the goal of assisting its members in the enrichment of their lives at work and at home. This programme is part of a larger scheme that covers the entire working life from ages 18 to 65.

*Curriculum*: Participants are required to read a 250-page monograph covering various topics in life planning, such as personal finance, career management, health maintenance and community and family relationships.

*Format*: A common format is a 2-day weekend meeting at a resort facility involving lectures and discussions.

*Participants*: Union members who are in their mid-to late 40s. In 1988, 700 members or about 50 per cent of eligible members participated.

**Case 2. Age 45 Life Planning Programme by Heavy Industry Union**

*Objectives*: The main objectives of the programme are to assist middle-aged workers (about age 45) in (i) making the best use of their remaining working life; (ii) providing assistance in personal finance planning; (iii) health maintenance; and (iv) the enrichment of personal life. The programme was started in 1978.

*Curriculum*: Lectures and discussion on the topics mentioned above. The age 45 training is followed by pre- and post-retirement counselling by career management specialists.

*Participants and length of training*: All union members in the appropriate age category are eligible. The number of participants and the days spent on training are unknown.

Note: The Japanese union is commonly called "the enterprise union", as the organisation is based on the member's company affiliation rather than his skills or the industry of his occupation. Enterprise unions are organised into an industry-wide federation (such as Federation of Automotive Unions, and Federation of Steel Unions) which in turn belong to one of several influential national federations of unions. According to the *Labour Union Basic Survey* by the Ministry of Labour, there are about 73,000 labour unions in Japan with a total membership of 1.2 million. The nationwide unionisation rate of eligible employees has fallen from 35 per cent in 1970 to the current level of 27 per cent (Rodosho, 1988).

## 4. DEFICITS AND NEEDS IN TRAINING ISSUES

### 4.1 Small enterprises

The preceding discussion has suggested that the experience of the Japanese worker varies depending on the size of the company and his/her gender. Thus, the discussion of older worker training is not complete without reference to these characteristics. In fact, referring to the discrepancy between large and small enterprises, Japanese economists frequently view "the dual structure" as a salient feature of the Japanese economy. Duality (or discrepancy) can be found in salary, benefits, job stability, working conditions, and prestige of the workplace. For example, the level of the relative base salary of a 45-year old model male worker at a large (over 1,000 employees), medium-sized (100-999), and small (under 100) company are estimated to be 100 to 83 to 70 (Rodosho, 1986).

In regard to older workers' training, the relevant fact is that the smaller the enterprise, the higher the proportion of older workers (table 11, p. 25). This result implies a greater need for older worker training programmes at small companies. However, as shown in table 12, training is less frequently provided at smaller units. A possible explanation is that management does not have sufficient resources to provide training or that it has other pressing needs (e.g. corporate survival) to handle. The result of a survey reported in table 12, p. 26 also indicates that this section is unlikely to change its policy on older worker training in the immediate future. This is so even though, as mentioned before, small companies receive a larger subsidy than do the large units under the government subsidy programme.

### 4.2 Women

Women are another group which might be considered under-privileged in terms of wage, promotion, training and other measures. Japanese women are clearly under-represented among corporate management and, on the average, paid about 50 to 60 per cent of the mean male salary. This condition is attributable to a number of cultural and economic reasons such as the common practice of discontinuing employment during child-rearing years (51 per cent labour force participation rate for the 30-34 age group) and part-time employment (43 per cent of the 45-54 age group women are part-timers) (Rodosho, 1988).

These employment characteristics of women undoubtedly affect their access to training programmes. For example, they are not frequent participants of corporate sector training programmes primarily because they are not in the occupational categories, such as managerial, professional, skilled or non-temporary workers, for which training programmes are often provided.

In contrast, the government-operated programmes are gender-neutral. While no data is available about the gender status of trainees, theoretically speaking, any course is open to both sexes. One of the government subsidised programmes, the pre-retirement occupational training programme, is also available to any individual taking an approved training course. On the other hand, other government subsidised programmes are likely to enrol more men than women. Because the employer selects participants for these programmes, men are often chosen as attendees over women due to the perception that, in this way, the company generates a greater return on its investment since males in general have longer working lives with a company.

### 4.3 Future training needs

The preceding discussion reveals several ways in which the value of future older workers can be enhanced and prolonged through government and employer-sponsored training programmes. These programmes include:

- Older worker training provided as part of a life-long career development programme. Continual upgrading of skills and exposure to new knowledge throughout one's careers are an essential feature of the scheme.

- Special assistance to small enterprises in the implementation of older worker training programmes. Sufficient incentives need to be provided to overcome their limited manpower and financial resources.

- Fine-tuning of training instructions that matches the needs and capability of older workers. This point deserves a special emphasis in their training in unfamiliar fields, such as micro-electronic technology.

- Designing senior worker training programmes as an integral component of a comprehensive manpower plan. For instance, in order for older workers to productively utilise a newly acquired skill, it may be necessary to adjust working conditions (e.g. reduction of night shift) and physical facilities(i.e. enlargement of the letter size on the computer screen).

## SUMMARY

*The demographic figures of Japan show that the percentage of people aged 55 and over started rising from a very low figure of 17.6 in 1980, but will reach about 32 per cent in the year 2010 which will be in line with the average in the European countries. This is a dramatic shift although the final position will remain moderate compared to that of the North European countries which will have to face up to percentages of about 37-40. The activity rate of the 55-64 age group, which is about 64 per cent at present, is one of the highest in the industrialised world and is expected to decline only very slightly to about 62 per cent in the year 2000, while some European countries will face a percentage of about 40. The activity rate of the 65 and over age group is at present, 26 per cent (with the other industrialised countries between 2 and 11 per cent) and will remain extraordinarily high at about 20 per cent. This is due to several factors such as low unemployment rate (2-3 per cent), concern about economic security, corporate personnel policy, supporting post-retirement work with the same employer, availability of self-employment and family employment, and finally the extension of the retirement age from 55 to 60 and possibly later to 65.*

*This situation of huge numbers of older people in the workforce obviously causes a more positive attitude to the (work) abilities and capabilities of older people. Then public and employers seem to have less concern about the greying of the workforce and are more accustomed to provide training geared to older workers than in other industrialised countries. Twenty-eight per cent of firms surveyed in 1984, were conducting such training programmes; 33 per cent are about to start them.*

*The Government supports the employment and training of older workers through several acts: The Employment Insurance Act; the Older Worker Employment Security Act which is about to support employment of workers aged 55 and over according to the extension of the mandatory retirement age from 55 to 60 years; the Occupational Skill/Ability Development Act which sets aside a certain portion of training activities for older workers (45 +) and a higher rate of reimbursement of cost for training older workers. For example, 33-50 of the training costs and 25-33 per cent of salaries during training up to 150 days; or: 50 per cent of the training costs (up to 100,000 Yen) are reimbursed to an older worker who is taking a training programme outside his company. At National Skill Development Centres the percentage of enrollees aged 45 and over increased from 28 per cent in 1975 to 45 per cent in 1987.*

*Government activities may not be large enough to meet the needs of the whole target group; but they are considered as a catalyst for private sector activities which according to Japanese expectations will soon be replaced by the private sector's own programmes.*

*The training courses provided by employers vary depending on the size of the company. While a very high percentage (79-97) of all polled firms consider training for older workers as a good business practice, major companies provide most of the specifically targeted training courses.*

*The unions in Japan seem to be the only ones within the countries covered to recognise the needs of an ageing workforce by presenting two reports in 1986 and 1987 on their position including training questions. Courses were provided as a result of the policy statements in these papers. The courses are mostly organised by "enterprise unions" which are based on the member's company affiliation similar to the US.*

*There is a so-called dual structure within the Japanese economy in that training is significantly worse in small enterprises although a higher proportion of older workers are employed and they receive larger subsidies than big firms.*

*Future training needs emphasise training as a life-long career development programme, special assistance to small enterprises, fine-tuning of training instructions to the needs of older workers, and adjusting workplaces.*

TABLES

**Table 1. Total population by age group (in percentage)**

| Age group | 1925 | 1950 | 1985 | 2000 | 2025 |
|---|---|---|---|---|---|
| 0-14 | 36.7 | 35.4 | 21.5 | 18.0 | 16.4 |
| 15-64 | 58.2 | 59.6 | 68.2 | 65.8 | 60.2 |
| 65 and over | 5.1 | 4.9 | 10.3 | 16.3 | 23.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Total No. of persons (in thousands) | 59 737 | 84 115 | 121 049 | 131 192 | 134 642 |

Sources: Census of Japan (historical) and the Ministry of Health and Welfare, Institute of Population Issues (projection)

**Table 2. Persons in labour force by age group (in percentage)**

| Age group | 1965 | 1975 | 1986 |
|---|---|---|---|
| 15-24 | 23.3 | 15.4 | 12.5 |
| 25-44 | 46.8 | 50.7 | 47.2 |
| 45-59 | 20.8 | 24.9 | 30.2 |
| 60 and over | 9.0 | 9.2 | 10.1 |
| Total | 100.0 | 100.0 | 100.0 |

Samples: National samples

Source: Ministry of Labour. Labour White Paper (Tokyo, Nihon Rodo Kyokai), 1988, p. 132 of the reference section.

Table 3. Labour force participation rates of men and women, 55 and older (in percentage)

| Age group | 1965 | 1975 | 1986 |
|---|---|---|---|
| Men | | | |
| 55-59 | 90.0 | 92.2 | 90.5 |
| 60-64 | 82.8 | 79.4 | 72.5 |
| 65 and over | 56.3 | 44.4 | 36.2 |
| Women | | | |
| 55-59 | 49.8 | 48.8 | 49.9 |
| 60-64 | 39.8 | 38.0 | 38.6 |
| 65 and over | 21.6 | 15.3 | 15.2 |

Source: Ministry of Labour. Labour White Paper (Tokyo Nihon Rodo Kyokai), 1988, p. 144 of the reference section.

Table 4. Desire to continue worklife: "At what age would you like to stop working?"

| Respondent's age | Continue to work as long as my health allows | Stop working at about 60 or younger | Stop working at about 65-70 |
|---|---|---|---|
| Total | 35.4 | 13.4 | 43.4 |
| 50-59 | 32.4 | 20.5 | 43.7 |
| 60-64 | 3.1 | 33.8 | 60.4 |

Samples: National sample of working people aged 20 to 65.

Source: Prime Minister's Office Survey. "Public opinions regarding desire to work - 1982" quoted in Sorifu, Data on ageing and the aged (Tokyo, Sorifu), 1983, p. 86.

Table 5. Older person's reasons for desire to work by age group (in percentage)

| Primary reasons | Total | 55-59 | 60-64 | 65-69 |
|---|---|---|---|---|
| Would like to have income | 49.6 | 69.6 | 41.6 | 40.9 |
| Working is good for health | 21.4 | 16.0 | 24.8 | 22.4 |
| Enjoy social interaction at work | 18.7 | 8.1 | 22.7 | 23.7 |

Sample: National sample of men age 55-69.

Source: Ministry of Labour. "Outline of survey of older persons' employment-1983" quoted in Sorifu, Data on ageing and the aged (Tokyo, Sorifu), 1983, p. 85.

Table 6. Workers who are self-employed or family workers as percentage of the total workforce, male (in percentage)

| Age | 1967 | 1977 | 1987 |
|---|---|---|---|
| 55-59 | 48.5 | 36.0 | 28.6 |
| 60-64 | 48.5 | 45.9 | 42.9 |
| 65 | 71.1 | 58.3 | 62.0 |

Source: Ministry of Labour. Labour White Paper (Tokyo, Daiichi Hoki Publishing), 1988, p. 138 of the reference section.

Table 7. Age of mandatory retirement (teinen) at companies which practice mandatory retirement

| Mandatory retirement age | 1967 | 1978 | 1987 |
|---|---|---|---|
| 55 or under | 63.5 | 41.4 | 23.3 |
| 56-59 | 14.2 | 19.4 | 18.0 |
| 60 | 20.6 | 33.7 | 53.9 |
| 61 and over | 1.5 | 4.8 | 4.8 |
| Total percentage | 100.0 | 100.0 | 100.0 |

Note: It is important to differentiate the mandatory retirement (teinen) from the departure from labour force (intai) in the Japanese context. After the teinen from a company, a Japanese worker typically continues to work several more years.

Sample: National samples.

Source: Ministry of Labour. Labour White Paper (Tokyo, Nihon Rodo Kyokai), 1988, p. 157 of the reference section.

Table 8. Responses to question: "What are the likely problems resulting from the ageing of production workforce?"

| Type of responses | Percentage of respondents agreed |
|---|---|
| Work group's ability to adjust to changes will diminish | 52.4 |
| Productivity will go down | 41.4 |
| Transfer of worker to new jobs will become difficult | 18.6 |
| Workgroup morale will decline | 12.8 |
| No problems are forecasted | 8.2 |

Note: A large scale survey of managers. Sample size unknown.

Source: Shokugyo Kunren Center. "Gijutsu Kaikaku: Chuokonenka to Jinzai no Yuko Katsuyo ni Kansuru Chosa Kekka Hokokusho" (Technological Innovations: Report on Ageing Labour Force and Effective Use of Manpower), 1983, quoted in Chukonen Career Kaihatsu Kenkyukai Chukan Hokoku, 1987, p. 13.

Table 9. Management views on capability of middle-aged and older workers (in percentage)

| | Responses | | |
|---|---|---|---|
| | Yes | No | Cannot say |
| While some skills decline with ageing, other skills improve with age | 62.8 | 7.5 | 20.1 |
| Competence of middle-aged and older workers vary greatly from a person to another | 83.8 | 6.1 | 1.6 |
| Organisational ineffectiveness is a greater cause of reduced capability of older employees than is the ageing process | 43.7 | 18.3 | 29.0 |
| A well-planned life-long job training should enable older workers to remain productive | 78.5 | 1.8 | 10.9 |

Sample: 600 companies in the machinery and machine tool industries.

Source. Keizai Shinko Kyokai Keizai Kenkyujo. Report on the effects of the introduction of micro-electronic system on aged workers (Tokyo), 1983, p. 178.

Table 10. Unemployment rates by sex and age (in percentage)

| | 1967 | 1977 | 1987 |
|---|---|---|---|
| Men | | | |
| Total rate, all ages | 1.2 | 2.1 | 2.8 |
| 50-54 | NA | 1.7 | 2.3 |
| 55-59 | 2.8 | 3.1 | 4.0 |
| 60-64 | NA | 4.6 | 7.6 |
| 65+ | 0.0 | 2.3 | 1.6 |
| Women | | | |
| Total rate, all ages | 1.4 | 1.8 | 2.8 |
| 50-54 | NA | 1.0 | 2.0 |
| 55-59 | 1.1 | 1.5 | 2.1 |
| 60-64 | NA | 1.1 | 2.4 |
| 65+ | 0.0 | 0.0 | 0.8 |

Source. Ministry of Labour. Labour White Paper (Tokyo, Nihon Rodo Kyokai, 1988), pp. 151-2 reference section.

Note. Unemployment rate = unemployed persons/(total employed and unemployed.

Table 11. Older workers as percentage of the workforce by size of enterprise, males, Tokyo, 1986.

| Size of enterprise by number of employees | Under 45 | 45-59 | 60+ | Total |
|---|---|---|---|---|
| 100-300 | 70.9 | 25.4 | 4.7 | 100.0 |
| 30-99 | 62.6 | 31.8 | 5.6 | 100.0 |
| 1-29 | 55.4 | 36.1 | 8.5 | 100.0 |
| 1-9 | 54.6 | 34.1 | 9.8 | 100.0 |
| Total | 64.3 | 31.1 | 4.6 | 100.0 |
| No. of persons | 550 656 | 267 350 | 40 813 | 855 819 |

Source. Tokyo Chuosho Kigyodantai Chuokai. "Tokyoto ni Okeru Chushokigyo no Rodo Jijo" (Labor Condition in Medium-sized and Small Enterprises in Tokyo), quoted in Chukonen Career Kaihatsu Kenkyuka, Interim report, 1987, p. 153.

Table 12. Training of older workers: Corporate practice and attitude, 1984 (in percentage)

| | Total | With 5,000 employees | With 30-99 employees |
|---|---|---|---|
| Currently provides training to older workers | 17.4 | 46.6 | 17.1 |
| Has already started a long-term career development for employees | 3.5 | 38.7 | 2.4 |
| Training of older workers is a current high priority issue | 1.3 | 0.7 | 1.5 |
| Training of older workers will be a high priority issue in future | 2.9 | 19.9 | 1.9 |

Sample: About 6,000 randomly selected enterprises.

Note. The older worker is defined as a working person 55 years old or over.

Source. "Rodosho, Koyo Doko Chosa" (Employment Survey), 1984, in Elder, vol. 10, no. 6, June 1988, pp. 29-30.

Table 13. Working persons by industry and age group, 1985
(in percentage)

| | -44 | 45-54 | 55+ | Total | No. of persons (000) |
|---|---|---|---|---|---|
| 1975 | | | | | |
| Total | 65.3 | 19.1 | 15.6 | 100.0 | 52 974 |
| Primary industry | 36.9 | 27.9 | 35.2 | 100.0 | 7 354 |
| Secondary industry | 71.1 | 17.8 | 11.1 | 100.0 | 18 098 |
| Construction | 70.2 | 17.5 | 12.3 | 100.0 | 4 729 |
| Manufacturing | 71.5 | 17.7 | 10.8 | 100.0 | 13 236 |
| Tertiary | 69.2 | 17.6 | 13.2 | 100.0 | 27 522 |
| Sales | 69.4 | 15.2 | 15.4 | 100.0 | NA |
| Service | 66.3 | 15.8 | 17.9 | 100.0 | NA |
| 1985 | | | | | |
| Total | 60.0 | 21.7 | 18.3 | 100.0 | 58 190 |
| Primary industry | 24.0 | 23.9 | 52.1 | 100.0 | 5 412 |
| Secondary industry | 61.6 | 24.5 | 13.9 | 100.0 | 19 334 |
| Construction | 60.0 | 24.2 | 15.8 | 100.0 | 5 266 |
| Manufacturing | 62.4 | 24.5 | 13.1 | 100.0 | 13 973 |
| Tertiary | 64.8 | 19.8 | 15.4 | 100.0 | 33 444 |
| Sales | 65.4 | 19.5 | 15.1 | 100.0 | NA |
| Service | 63.7 | 18.9 | 17.4 | 100.0 | NA |

Source. Rodosho, Rodo Hakusho (Labor White Paper) (Tokyo, Daiichi Hoki Publishing), 1988, p. 122 in reference section.

Table 14. Working persons by occupation and age group, 1985 (in percentage)

| | -44 | 45-54 | 55+ | Total | No. of persons (000) |
|---|---|---|---|---|---|
| 1975 | | | | | |
| Total | 65.3 | 19.1 | 15.6 | 100.0 | 52 974 |
| Professional and technical | 70.2 | 18.7 | 11.1 | 100.0 | 4 026 |
| Managerial and administrative | 40.7 | 32.7 | 26.6 | 100.0 | 2 278 |
| Clerical | 78.1 | 14.8 | 7.1 | 100.0 | 8 847 |
| Sales | 68.0 | 15.6 | 16.4 | 100.0 | 7 046 |
| Farming, forestry, and fishing | 37.6 | 27.9 | 34.5 | 100.0 | 7 310 |
| Mining | 55.2 | 34.4 | 10.4 | 100.0 | 106 |
| Transportation and communication | 81.2 | 15.1 | 3.7 | 100.0 | 2 384 |
| Skilled, semi-skilled and unskilled | 69.3 | 18.1 | 12.6 | 100.0 | 16 793 |
| Public safety maintenance | 68.6 | 18.1 | 13.3 | 100.0 | 742 |
| Services | 66.9 | 17.5 | 15.6 | 100.0 | 3 443 |
| 1985 | | | | | |
| Total | 60.0 | 21.7 | 18.3 | 100.0 | 58 190 |
| Professional and technical | 71.4 | 15.9 | 12.7 | 100.0 | 6 110 |
| Managerial and administrative | 29.1 | 34.1 | 36.8 | 100.0 | 2 328 |
| Clerical | 71.8 | 18.1 | 10.1 | 100.0 | 10 707 |
| Sales | 63.4 | 19.8 | 16.8 | 100.0 | 8 088 |
| Farming, forestry, and fishing | 23.8 | 23.7 | 52.5 | 100.0 | 5 353 |
| Mining | 49.6 | 37.6 | 12.8 | 100.0 | 58 |
| Transportation and communication | 65.3 | 26.3 | 8.4 | 100.0 | 2 386 |
| Skilled, semi-skilled and unskilled | 61.2 | 24.0 | 14.8 | 100.0 | 18 097 |
| Public safety maintenance | 66.4 | 15.9 | 17.7 | 100.0 | 815 |
| Services | 62.1 | 21.8 | 16.1 | 100.0 | 4 131 |

Source. Rodosho, Rodo Hakusho (Labor White Paper), 1988, pp. 120-125 of the reference section.

## BIBLIOGRAPHY


Amakasu, Keisuke. *Koreika Shakai no Koyo Mondai* (Employment in Ageing Society), (Tokyo, Rodo Shinbun-sha).

Elders editorial staff. "Chukonenreisha no Noryoku Kaihatsu" (Skill development of middle-aged and older workers), in *Elders*, vol. 7, no. 5, May 1985.

---. "Koyokanri Chosa - 20 Kaino Kiroku" (Employment Administration Survey - 20 issues), in *Elders*, vol. 10, no. 6, June 1988.

Keizai Kikakucho. *Koreisha no Jittai to 21 Seiki Fukushi Shakai no Tembo* (Current status of older persons and forecast for a welfare society in the 21st Century), (Tokyo, Shakai Hoken Kenkyujo), 1987.

Kikai Shinko Kyokai. *Maikuro Erekutoronikusuki Donyu no Chukonen Rodosha ni Oyobosu Eikyo ni Kansuru Chosa Kenkyu* (Research on the impact of micro-electronic facilities on middle-aged and older workers), (Tokyo, Kikai Shinko Kyokai), 1983.

Konenreisha Koyo Kaihatsu Kyokai. *Teinen Encho Kankei Shiryoshu* (Data on the extension of mandatory retirement age), (Tokyo, Konenreisha Koyo Kaihatsu Kyokai), 1986.

---. *Elder Saizensen* (Elder's Front Line), (Tokyo, Konenreisha Koyo Kaihatsu Kyokai), 1984.

---. *Koreika ni Taiosuru Jinji Shisaku ni Kansuru Chosa* (Survey of personnel policies regarding ageing labour force), (Tokyo, Konenreisha Koyo Kaihatsu Kyokai), 1987A.

---. *Chukonen Shinro Sodan no Tebiki* (Guide for career counselling of middle-aged and older workers), (Tokyo, Konenreisha Koyo Kaihatsu Kyokai), 1987B.

---. *Korei Jugyosha no Ukeirenitaisuru Chosa* (Survey on the workplace condition of older employees), (Tokyo, Konenreisha Koyo Kaihatsu Kyokai), 1988.

Koseisho. *Kosei Hakusho* (White paper on health and welfare), (Tokyo, Kosei Tokei Kyokai), 1988.

Koyo Shokugyo Sogyo Kenkyujo. *60-saidai Zenppanso no Shugyo ni Kansuru Chosa Kenkyu Hokoku* (Report on the employment of workers aged 60 through 65), (Tokyo, Konenreisha Koyo Kaihatsu Kyokai), 1984.

Levine, Sol. *Human resources in Japan's economic development* (Princeton, N.J., Princeton University Press), 1980.

Nenkin Kenkyukai; Schulz, J. *Nihon to America no Nenkin Seida* (Pension systems in Japan and the US), (Tokyo,Chuo Hoki Publication), 1987.

Nomiyama Masayuki. *Shinjidai no Shokugyo Noryoku Kaihatsu* (Development of occupational skill/ability in a new era), (Tokyo, Romy Gyosei Kenkyujo), 1987.

Osako, Masako. "How Japan copes with the aging labor force", in *Aging and work*, 1981.

---. "How Japan raises the retirement age", in *Productivity Aging News*, no. 9, Nov.-Dec., 1986.

---. "Downward mobility as a form of phased retirement in Japan", in *Aging International*, vol. XV, no. 2, Dec. 1988.

Rodosho. *Rodo Hakusho: Gijutsu Kakushinka no Rodo to Noryoku Kaihatsu* (Labour and skill development under technological innovation), (Tokyo, Nihon Rodo Kyokai), 1985.

---. *Rodo, Hakusho: Kozo Chosei Ka no Koyo Antei to Kinro Seikatsu* (Employment security and quality of life under industrial structural adjustments), (Tokyo, Nihon Rodo Kyokai), 1988A.

---. *Koyo Kanri Chosa* (Survey of employment administration), (Tokyo, Rodosho), 1988B.

---. *Minkan Kyoiku Kunren Jittai Chosa Hokokusho* (Survey of occupational training programmes in the private sector), (Tokyo, Rodosho), 1988C.

---, et.al. *Jigyoshu no Minasan e: Konen Rodosha no Koyo o Susumeru Tameni Guide Book for employers* (Expansion of older workers' job opportunities, (Tokyo, Rodosho), 1987.

---, et. al. *Jigyoshu no kata e Kyuhikin no Goannai: Koyo no Antei no Tameni* (Employerss' guide book on government subsidies: toward increased employment security), (Tokyo, Rodosho), 1988.

Shakaihoken Romushi Jukenkenkyu ka (ed.). *Koyo Hoken Ho* (Employment Insurance Act), (Tokyo, Nippon Manpower), 1988.

Somucho. *Koreisha Mondai no Genjo to Shisaku* (Ageing labour force: Current condition and policy), (Tokyo, Ministry of Finance Printing Office), 1984.

---. *Choju Shakai Taisaku Kankei Shisaku no Gaiyo* (Outline of policies to deal with ageing society), (Tokyo, Somucho), 1987.

---. *Koreishal Koyo Taisaku no Genjo to Mondaiten* (Employment of older workers; Current status and problems), (Tokyo, Ministry of Finance Printing Office), 1988.

Sorifu. *Koreisha Mondai Kankei Shiryoshu* (Collection of data on ageing issues), (Tokyo, Sorifu), 1985.

Sumiya, Mikio, et. al. (eds.). *Nihon Shokugyo Kunren Hattenshi* (History of occupational training in Japan), (Tokyo, Nihon Rodo Kyokai), 1978.

---. *Gijutsu Kakushin to Roshi Kankei* (Technological changes and employer-employee relationship), (Tokyo, Nihon Rodo Kyokai), 1983.

Tung, R. *Key to Japan's economic strength: Human power* (Lexington, Lexington Press), 1984.

Yoshida, Tadao (ed.). *Koreika Shakai to Rodo Kumiai* (Ageing Society and labour union), (Tokyo, Minshu Shakai Shugi Kenkyu Kaigi), 1984.

Zaika editors." Tekko Ote Gosha no Risuke" (Business restructuring at five major steel mills), in *Zaika*, vol. 36, no. 8, 1988.

Zen Nippon Minkan Rodo Kumiai Kyogikai. *Kigyonai ni Okeru Konenka Mondai ni Taisuru Rodo Kumiai no Yakuwari to Taio* (The role of labour unions in the efforts to mitigate the negative impact of ageing labour force), (Tokyo), 1986.

---. *Kigyonai ni Okeru Konenka Mondai ni Taisuru Rodo Kumiai no Taio Shishin* (Labour unions' policy positions concerning ageing workforce), (Tokyo), 1987.